

Paolo Castellini

List of Publications by Year in descending order

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115
papers

2,160
citations

361045

20
h-index

264894

42
g-index

119
all docs

119
docs citations

119
times ranked

1555
citing authors

#	ARTICLE	IF	CITATIONS
1	Laser Doppler Vibrometry: Development of advanced solutions answering to technology's needs. Mechanical Systems and Signal Processing, 2006, 20, 1265-1285.	4.4	399
2	An international review of laser Doppler vibrometry: Making light work of vibration measurement. Optics and Lasers in Engineering, 2017, 99, 11-22.	2.0	274
3	Acoustic beamforming for noise source localization – Reviews, methodology and applications. Mechanical Systems and Signal Processing, 2019, 120, 422-448.	4.4	219
4	Laser Doppler Vibrometry: A Review of Advances and Applications. The Shock and Vibration Digest, 1998, 30, 443-456.	6.2	106
5	The laser doppler vibrometer as an instrument for nonintrusive diagnostic of works of art: Application to fresco paintings. Optics and Lasers in Engineering, 1996, 25, 227-246.	2.0	53
6	Vibration measurements on blades of a naval propeller rotating in water with tracking laser vibrometer. Measurement: Journal of the International Measurement Confederation, 1998, 24, 43-54.	2.5	48
7	Development of the tracking laser vibrometer: Performance and uncertainty analysis. Review of Scientific Instruments, 2000, 71, 4639.	0.6	43
8	Laser-based systems for the structural diagnostic of artwork: an application to XVII-century Byzantine icons. , 2001, , .		31
9	Teeth Mobility Measurement: A Laser Vibrometry Approach. Photomedicine and Laser Surgery, 1998, 16, 269-272.	1.1	30
10	New applications of Scanning Laser Doppler Vibrometry (SLDV) to non-destructive diagnostics of artworks: mosaics, ceramics, inlaid wood and easel painting. Journal of Cultural Heritage, 2003, 4, 321-329.	1.5	30
11	Acoustic source localization in a reverberant environment by average beamforming. Mechanical Systems and Signal Processing, 2010, 24, 796-808.	4.4	30
12	Acoustic beamforming: Analysis of uncertainty and metrological performances. Mechanical Systems and Signal Processing, 2008, 22, 672-692.	4.4	29
13	Measurement of vibrational modal parameters using laser pulse excitation techniques. Measurement: Journal of the International Measurement Confederation, 2004, 35, 163-179.	2.5	26
14	Non-invasive measurements of damage of frescoes paintings and icon by laser scanning vibrometer: experimental results on artificial samples and real works of art. Measurement: Journal of the International Measurement Confederation, 2000, 28, 33-45.	2.5	25
15	Exploiting Continuous Scanning Laser Doppler Vibrometry in timing belt dynamic characterisation. Mechanical Systems and Signal Processing, 2017, 86, 66-81.	4.4	25
16	Continuous Scanning Laser Vibrometry: A raison d'être and applications to vibration measurements. Mechanical Systems and Signal Processing, 2021, 156, 107573.	4.4	25
17	Vibration measurements for diagnosis of structural defects on human teeth. Measurement: Journal of the International Measurement Confederation, 2000, 27, 29-42.	2.5	24
18	Cardiac valve prosthesis flow performances measured by 2D and 3D-stereo particle image velocimetry. Experiments in Fluids, 2004, 36, 176-186.	1.1	24

#	ARTICLE	IF	CITATIONS
19	Laser Doppler vibrometry on rotating structures in coast-down: resonance frequencies and operational deflection shape characterization. <i>Measurement Science and Technology</i> , 2011, 22, 115106.	1.4	23
20	Automotive components vibration measurements by tracking laser Doppler vibrometry: advances in signal processing. <i>Measurement Science and Technology</i> , 2002, 13, 1266-1279.	1.4	22
21	Portable electronic speckle interferometry device for the damages measurements in veneered wood artworks. <i>Journal of Cultural Heritage</i> , 2008, 9, 225-233.	1.5	21
22	A neural network based microphone array approach to grid-less noise source localization. <i>Applied Acoustics</i> , 2021, 177, 107947.	1.7	21
23	Laser vibration measurements and data processing for structural diagnostic on composite material. <i>Review of Scientific Instruments</i> , 2000, 71, 207-215.	0.6	20
24	Adaptive autonomous positioning of a robot vision system: Application to quality control on production lines. <i>Robotics and Computer-Integrated Manufacturing</i> , 2014, 30, 489-498.	6.1	20
25	Experimental Modal Analysis on a Rotating Fan Using Tracking-CSLDV. <i>AIP Conference Proceedings</i> , 2010, , .	0.3	19
26	Experimental and numerical investigation on structural effects of laser pulses for modal parameter measurement. <i>Optics and Lasers in Engineering</i> , 1999, 32, 565-581.	2.0	18
27	A Smartphone Integrated Hand-Held Gap and Flush Measurement System for in Line Quality Control of Car Body Assembly. <i>Sensors</i> , 2020, 20, 3300.	2.1	18
28	An Experimental Technique for Structural Diagnostic Based on Laser Vibrometry and Neural Networks. <i>Shock and Vibration</i> , 2000, 7, 381-397.	0.3	17
29	Towards the integration of process and quality control using multi-agent technology. , 2011, , .		17
30	Testing Surgical Face Masks in an Emergency Context: The Experience of Italian Laboratories during the COVID-19 Pandemic Crisis. <i>International Journal of Environmental Research and Public Health</i> , 2021, 18, 1462.	1.2	17
31	LASER DOPPLER VIBROMETRY. <i>Series in Optics and Photonics</i> , 2009, , 216-229.	0.1	17
32	On field validation of non-invasive laser scanning vibrometer measurement of damaged frescoes: experiments on large walls artificially aged. <i>Journal of Cultural Heritage</i> , 2000, 1, S349-S356.	1.5	16
33	Investigating Additive Manufactured Lattice Structures: A Multi-Instrument Approach. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2020, 69, 2459-2467.	2.4	16
34	Image-based tracking laser Doppler vibrometer. <i>Review of Scientific Instruments</i> , 2004, 75, 222-232.	0.6	15
35	Particle Image Velocimetry for Flow Analysis in Longitudinal Planes across a Mechanical Artificial Heart Valve. <i>Artificial Organs</i> , 2004, 28, 507-513.	1.0	15
36	Integration of process and quality control using multi-agent technology. , 2013, , .		15

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37	Performance Evaluation of Vibrational Measurements through mmWave Automotive Radars. Remote Sensing, 2021, 13, 98.	1.8	15
38	Average acoustic beamforming in car cabins: An automatic system for acoustic mapping over 3D surfaces. Applied Acoustics, 2018, 129, 47-63.	1.7	14
39	Laser sheet scattered light method for industrial measurement of thickness residual stress distribution in flat tempered glass. Optics and Lasers in Engineering, 2012, 50, 787-795.	2.0	13
40	Dynamic characterization of temperature sensors by laser excitation. Review of Scientific Instruments, 1996, 67, 2595-2601.	0.6	11
41	Vibration Measurements by Tracking Laser Doppler Vibrometer on Automotive Components. Shock and Vibration, 2002, 9, 67-89.	0.3	11
42	Immunohistochemical analysis of chromatin remodeler DAXX in high grade urothelial carcinoma. Diagnostic Pathology, 2013, 8, 111.	0.9	11
43	Average beamforming in reverberant fields: Application on helicopter and airplane cockpits. Applied Acoustics, 2013, 74, 198-210.	1.7	11
44	Delamination detection in composites by laser ultrasonics. AIP Conference Proceedings, 2014, , .	0.3	11
45	Experimental observations of an installed-on-pylon contra-rotating open rotor with equal blade number in pusher and tractor configuration. International Journal of Aeroacoustics, 2016, 15, 228-249.	0.8	11
46	Structural damage assessment in composite material using laser Doppler vibrometry. , 2004, , .		10
47	Deflection Shape Reconstructions of a Rotating Five-blade Helicopter Rotor from TLDV Measurements. , 2010, , .		10
48	Laser vibrometry vibration measurements on vehicle cabins in running conditions: helicopter mock-up application. Optical Engineering, 2011, 50, 101502.	0.5	10
49	Measurement of mechanical loads in large wind turbines: Problems on calibration of strain gage bridges and analysis of uncertainty. Wind Energy, 2017, 20, 1997-2010.	1.9	10
50	Smart quality control station for non-contact measurement of cylindrical parts based on a confocal chromatic sensor. IEEE Instrumentation and Measurement Magazine, 2018, 21, 22-28.	1.2	10
51	Spherical Harmonics Decomposition in inverse acoustic methods involving spherical arrays. Journal of Sound and Vibration, 2018, 433, 425-460.	2.1	10
52	Smart portable laser triangulation system for assessing gap and flush in car body assembly line. , 2019, , .		10
53	Inverse methods in aeroacoustic three-dimensional volumetric noise source localization and quantification. Journal of Sound and Vibration, 2020, 473, 115208.	2.1	10
54	Measuring breathability and bacterial filtration efficiency of face masks in the pandemic context: A round robin study with proficiency testing among non-accredited laboratories. Measurement: Journal of the International Measurement Confederation, 2022, 189, 110481.	2.5	10

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55	Teeth mobility measurement by laser Doppler vibrometer. Review of Scientific Instruments, 1999, 70, 2850-2855.	0.6	9
56	Flow characterization using a laser Doppler vibrometer. Optics and Lasers in Engineering, 2007, 45, 19-26.	2.0	9
57	<title>Vibration measurements on blades of naval propeller rotating in water</title>. , 1996, , .		8
58	<title>Damage detection and characterization by processing laser vibrometer measurement results: application to composite materials</title>. , 1998, , .		8
59	Performance analysis of continuous tracking laser Doppler vibrometry applied to rotating structures in coast-down. Measurement Science and Technology, 2012, 23, 065202.	1.4	8
60	3D Generalized Inverse Beamforming in wind tunnel aeroacoustic testing: application to a Counter Rotating Open Rotor aircraft model. Applied Acoustics, 2020, 163, 107229.	1.7	8
61	Subsonic jet pressure fluctuation characterization by tomographic laser interferometry. Experiments in Fluids, 2013, 54, 1.	1.1	7
62	The application of advanced beamforming techniques for the noise characterization of installed counter rotating open rotors. , 2013, , .		7
63	Nondestructive Evaluation of Plasters on Historical Thin Vaults by Scanning Laser Doppler Vibrometers. Research in Nondestructive Evaluation, 2014, 25, 218-234.	0.5	7
64	<title>Conservation of frescoes, paintings, and icons: noninvasive measurement of damage by a laser scanning vibrometer</title>. , 1998, 3396, 63.		6
65	Design of an optical scanner for real time on-line measurement of wood-panel profiles. , 2007, , .		6
66	Recurrent papillary urothelial neoplasm of low malignant potential. Subtle architectural disorder detected by quantitative analysis in DAXX-immunostained tissue sections. Human Pathology, 2014, 45, 745-752.	1.1	6
67	IRLS based inverse methods tailored to volumetric acoustic source mapping. Applied Acoustics, 2021, 172, 107599.	1.7	6
68	<title>Noninvasive measurements of damage of fresco paintings and icons by laser scanning vibrometer: experimental results on artificial samples and real works of art</title>. , 1998, , .		5
69	Development of a film sensor for static and dynamic force measurement. Review of Scientific Instruments, 2002, 73, 3378-3385.	0.6	5
70	How to measure actual tire shape in the rolling condition using Scanning LDV. Mechanical Systems and Signal Processing, 2010, 24, 736-745.	4.4	5
71	Adaptive illumination through spatial modulation of light intensity and image inversion. Measurement Science and Technology, 2013, 24, 055401.	1.4	5
72	Re-sampling of continuous scanning LDV data for ODS extraction. Mechanical Systems and Signal Processing, 2016, 72-73, 667-677.	4.4	5

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73	<title>Scanning laser Doppler vibrometer for dynamic measurements on small- and microsystems</title>. , 2002, 4827, 486.		4
74	<title>Vibration measurement on artificial heart valve by laser Doppler vibrometry</title>. , 2002, 4827, 159.		4
75	Medical diagnosis of the cardiovascular system on the carotid artery with IR laser Doppler vibrometer. , 2014, , .		4
76	Optimization of spatial light distribution through genetic algorithms for vision systems applied to quality control. Measurement Science and Technology, 2015, 26, 025401.	1.4	4
77	Mode matching of Continuous Scanning Laser Doppler Vibration data in the frequency domain. Optics and Lasers in Engineering, 2018, 107, 231-240.	2.0	4
78	Nondestructive testing of wood defected samples by ESPI. , 2006, 6345, 69.		3
79	System for measuring the coordinates of tire surfaces in transient conditions when rolling over obstacles: Description of the system and performance analysis. Review of Scientific Instruments, 2008, 79, 065105.	0.6	3
80	The Rhodes electric piano: Analysis and simulation of the inharmonic overtones. Journal of the Acoustical Society of America, 2020, 148, 3052-3064.	0.5	3
81	Analysis of reproducibility and repeatability of a hand-held laser scanner for gap&flush measurement in car-assembly line. , 2020, , .		3
82	3D Acoustic Mapping in Automotive Wind Tunnel: Algorithm and Problem Analysis on Simulated Data. Applied Sciences (Switzerland), 2021, 11, 3241.	1.3	3
83	Valvetrain Motion Measurements in Firing Conditions by Laser Doppler Vibrometer. Conference Proceedings of the Society for Experimental Mechanics, 2013, , 395-400.	0.3	3
84	Recovery of Mode Shapes from Continuous Scanning Laser Doppler Vibration Data: A Mode Matching Frequency Domain Approach. Conference Proceedings of the Society for Experimental Mechanics, 2014, , 207-213.	0.3	3
85	Aeroacoustic characterization of turbulent free jets using scanning laser Doppler vibrometry. , 2004, , .		2
86	Quality control agent: Self-adaptive laser vibrometry for on-line diagnostics. , 2012, , .		2
87	Agent-based station for on-line diagnostics by self-adaptive laser Doppler vibrometry. Review of Scientific Instruments, 2013, 84, 121703.	0.6	2
88	Self-Optimizing Robot Vision for Online Quality Control. Experimental Techniques, 2016, 40, 1051-1064.	0.9	2
89	Continuous Scanning LDV by Signal Re-sampling Method: A New Signal Processing Approach. Conference Proceedings of the Society for Experimental Mechanics, 2012, , 443-452.	0.3	2
90	Soft-sensing reconstruction of in-depth defect geometry from active IR-thermography data. Measurement Science and Technology, 2020, 31, 125902.	1.4	2

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91	In-Line Burr Inspection Through Backlight Vision. Lecture Notes in Computer Science, 2019, , 343-351.	1.0	2
92	<title>Dynamic characterization of teeth by laser vibrometry</title>. , 1998, , .		1
93	<title>Development of an experimental test bench for the measurement of fluid dynamic behavior of mechanical heart valve</title>. , 2001, 4263, 65.		1
94	Noise Source Localization on Washing Machines by Conformal Array Technique and Near Field Acoustic Holography. , 0, , .		1
95	Development of a Comprehensive Mathematical Model for Simulating the Effects of Misalignments in Vibration Measurements using Scanning LDV Measurement Systems. , 2010, , .		1
96	Phase mapping of acoustic sources by beamforming and iterative far field monopole substitution. Journal of the Acoustical Society of America, 2012, 132, 295-302.	0.5	1
97	Different configurations of laser vibrometry for quality control of electric motors with external rotor. , 2012, , .		1
98	Laser Doppler Vibrometry for Structural Dynamic Characterization of Rotating Machinery. Applied Mechanics and Materials, 0, 415, 538-543.	0.2	1
99	Blind Identification of Operational Deflection Shapes from Continuous Scanning Laser Doppler Vibrometry Data. Conference Proceedings of the Society for Experimental Mechanics, 2016, , 105-111.	0.3	1
100	Laser Doppler Vibrometry Measurements in Structural Dynamics. , 2020, , 1-45.		1
101	Characterization of Rotating Structures in Coast-down by means of Continuous Tracking Laser Doppler Vibrometer. Conference Proceedings of the Society for Experimental Mechanics, 2011, , 525-532.	0.3	1
102	Non-invasive Measurements of Damage of Frescoes Paintings and Icons by Laser Scanning Vibrometer: A Comparison of Different Exciters Used with Artificial Samples. , 2000, , 174-178.		1
103	Self-Optimizing Robot Vision for Online Quality Control. Experimental Techniques, 2015, 40, n/a-n/a.	0.9	1
104	Karyometry and quantitative immunohistochemical analysis of the urothelium in tissue sections: a feasibility study based on chromatin remodeler DAXX immunostaining. Journal of Biological Regulators and Homeostatic Agents, 2013, 27, 913-7.	0.7	1
105	Acoustic Attenuation of COVID-19 Face Masks: Correlation to Fibrous Material Porosity, Mask Breathability and Bacterial Filtration Efficiency. Acoustics, 2022, 4, 123-138.	0.8	1
106	A comparison between aeroacoustic source mapping techniques for the characterisation of wind turbine blade models with microphone arrays. Acta IMEKO (2012), 2021, 10, 147.	0.4	1
107	New applications of scanning laser Doppler vibrometry (SLDV) to nondestructive diagnosis of artwork: mosaics, ceramics, inlaid wood, and easel painting. , 2001, , .		0
108	Optical scanner for the measurement of surface profile of large size panels: analysis of metrologic performance and measurement uncertainty. , 2007, , .		0

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109	Scanning Laser Doppler Vibrometer Measurements Inside Helicopter Cabins in Running Conditions: Problems and Mock-up Testing. , 2010, , .		0
110	Non-destructive Consolidation Assessment of Historical Camorcanna Ceilings by Scanning Laser Doppler Vibrometry. Journal of Nondestructive Evaluation, 2020, 39, 1.	1.1	0
111	Laser Doppler Vibrometry Measurements in Structural Dynamics. , 2021, , 1-45.		0
112	<title>Particle image velocimetry for flow analysis in mechanical artificial heart valves</title>. , 2001, , .		0
113	Beamforming for quality control in industrial environment. Conference Proceedings of the Society for Experimental Mechanics, 2011, , 1347-1353.	0.3	0
114	Nondestructive Consolidation Assessment of Historical Camorcanna Ceilings by Scanning Laser Doppler Vibrometry. Conference Proceedings of the Society for Experimental Mechanics, 2020, , 1-10.	0.3	0
115	Laser Doppler Vibrometry Measurements in Structural Dynamics. , 2022, , 103-147.		0